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C-A OPERATIONS PROCEDURES MANUAL

ATTACHMENT

11.4.3.d STAR Power Supply Tap Change Check Off List

C-A-OPM Procedures in which this Attachment is used.		
11.4.3		

Hand Processed Changes

<u>HPC No.</u>	<u>Date</u>	<u>Page Nos.</u>	<u>Initials</u>
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Approved: _____ **Signature On File** _____
Collider-Accelerator Department Chairman Date

P. Rosas

STAR Power Supply Tap Change Check Off List

Warning:

The Main Magnet Power Supply and PTT-EAST & WEST Power Supplies are equipped with NO-LOAD TAP CHANGER SWITCHES. Taps can only be changed when power is removed from the transformers.

1. Tap changers are available for the Main Magnet Power Supply, PTT-EAST and PTT-WEST Power Supplies only. The Space Trim Power Supplies do not have Tap Changers.
2. The STAR Power Supplies shall be shut down in accordance with the “STAR Power Supply **SHUT-DOWN Check Off List**” before taps may be changed. All completed check off lists shall be signed and kept in a binder in the STAR Control room.
3. Main Magnet Power Supply:
 - CAS WATCH Operator shall remove the 7X key from the ‘B’ Transfer Lock and retain the key until all tap changing is completed. []
 - Unlock PS Transformer Yard Gate using **UEB-19** key. []
 - Unlock tap switch access door using **UEB-19** key for the **LEAD 2500KVA** transformer and rotate the tap switch to the required tap position. Two full turns are required for each tap position. Close the tap switch access door and lock with the **UEB-19** lock. []
 - Unlock tap switch access door using **UEB-19** key for the **LAG 2500KVA** transformer and rotate the tap switch to the required tap position. Two full turns are required for each tap position. Closed the tap switch access door and lock with the **UEB-19** lock. []

Warning:

Both Main Magnet Power Supply Transformers must be in the same tap position. Excessive output ripple will be produced and may blow filter bank fuses.

- This completes the Main Magnet Power Supply portion of this check list, if no additional taps need to be changed then skip to section 6 of this check list.

Completed By: _____ Tap Setting: _____ Date: _____

4. PTT-EAST Power Supply:

- CAS WATCH Operator shall remove the **7X** key from the **'B' Transfer Lock** and retain the key until all tap changing is completed. []
- Unlock PS Transformer Yard Gate using **UEB-19** key. []
- Unlock the tap switch access door for the PTT-EAST Dual 140 KVA transformer using the **UEB-19** key. []
- Rotate Both tap switches to the same required tap position. Two full turns are required for each tap position. []
- Closed the tap switch door and lock with the UEB-19 lock. []

Warning:

Both PTT-EAST Power Supply Transformers must be in the same tap position.
Excessive output ripple will be produced and may blow filter bank fuses.

- This completes the PTT-EAST Power Supply portion of this check list, if no additional taps need to be changed then skip to section 6 of this check list.

Completed By: _____ Tap Setting: _____ Date: _____

5. PTT-WEST Power Supply:

- CAS WATCH Operator shall remove the **7X** key from the **'B' Transfer Lock** and retain the key until all tap changing is completed. []
- Unlock PS Transformer Yard Gate using **UEB-19** key. []
- Unlock the tap switch access door for the PTT-WEST Dual 140 KVA transformer using the **UEB-19** key. []
- Rotate both tap switches to the same required tap position. Two full turns are required for each tap position. []
- Closed the tap switch door and lock with the UEB-19 lock. []

Warning:

Both PTT-WEST Power Supply Transformers must be in the same tap position.
Excessive output ripple will be produced and may blow filter bank fuses.

- This completes the PTT-WEST Power Supply portion of this check list,
if no additional taps need to be changed then skip to section 6 of this check list.
6. Perform a sweep of the power supply transformer yard to verify that all personnel have left the transformer area. []
 7. Lock the power supply transformer yard gate with **UEB-19** lock. []
 8. **CAS WATCH Operator** shall return the **7X** key to the **‘B’ Transfer Lock**. []
 9. Record on the Power Supply logbook, the Tap Change completion []

This completes the Power Supply Tap Change Check Off List portion of this procedure.

NOTES:

Completed By: _____ Tap Setting: _____ Date: _____
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